

Appl. No. 10/760,244
Amdt. Dated February 20, 2006
Response to Office Action of November 15, 2005

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Amendment to the Specification

2-11

5-7-67
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The Paragraph beginning at Page 6, lines 1-10, is to be amended as follows:

Referring now to Figure 2, there is depicted a block diagram of removable inkjet printer cartridge 6. Cartridge 6 includes ink refill port 8 and an ink delivery assembly 10 for storing and delivering ink to a micro-electromechanical pagewidth print head chip 52. Printhead chip 52 receives power and data signals from cradle 4 (see Fig. 1) via power and data interface 58. A rotor element 60, which is mechanically driven by cradle 4 has three faces which respectively serve to: blot printhead chip 52 subsequent to ink ejection; seal the printhead when it is not in use; and act as a platen during printing. Accordingly, rotor element 60 acts as an auxiliary assembly to the printhead in that it assists in maintaining proper printhead functioning. Cartridge 6 also includes an authentication device in the form of quality assurance chip 57 which contains various manufacturer codes that are read by electronic circuitry of controller board 82 of cradle 4 during use. The manufacturer codes are read to verify the authenticity of cartridge 6.

The Paragraph beginning at Page 9, lines 9-10, is to be amended as follows:

The ink jet printhead chip 52 (see Fig. 6) includes a silicon wafer substrate 801~~3~~₅. 0.35 Micron 1 P4M 12 volt CMOS microprocessing circuitry is positioned on the silicon wafer substrate 801~~3~~₅.

152A and 152B respectively. Upon rotor element drive roller 94 being rotated, cams 148A and 148B abut the inner wall of cam followers 150A and 150B thereby causing the cam followers to rise taking with them jaws 154A and 154B respectively.

The Paragraphs beginning at Page 14, lines 18-26 are to be amended as follows:

A metal backplane 92 is secured to the rear of cradle molding 80 as may be best seen in side view in Figure 25 and in cross section in Figure 27. Mounted to backplane 92 is a control board 82 loaded with various electronic circuitry. The control board is covered by a metal radio frequency interference (RFI) shield 102. Control board 82 is electrically coupled to cradle connectors 84A and 84B via a flex PCB connector 106 and also to an external data and power connection point in the form of USB port connector 130. USB connector 130 enables connection to an external personal computer or other computational device. Cradle connectors 84A, 84B are supported in slots formed at either end of cradle molding 80 and are arranged so that upon printer cartridge 6 being fully inserted into recess 89 of the cradle molding, cradle connectors 84A and 84B make electrical contact with cartridge connectors 58A and 58B (see Fig. 6).

Controller board 82 is connected by various cable looms and flexible PCB 106 to QA chip contact 132. The QA chip contact is located in a recess 134 formed in cradle molding 80 and is situated so that during ink refilling it makes contact with a QA chip 176 located in an ink refill cartridge ~~162 as that~~ will be described shortly.

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The Paragraph beginning at Page 25, lines 1-10 is to be amended as follows:

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Referring now to Figure 40, the first step of the ink refilling procedure is initiated by refill sensor 35 indicating to controller board 82 that there is a deficiency of printing fluid in storage reservoirs 28, 30, 32, 34. In response to the signal from ~~refill sensor 35~~ the ink cartridge QA chip that the ink is nearly depleted, controller board 82 activates indicator LED ~~135~~ 138 to inform the user that another refill is necessary. Alternatively, the detection of whether there is a deficiency of printing ink might instead be calculated by the electronics of the controller board. As the volume of ink per nozzle injection is known and is consistent throughout the operation of the printhead (approximately 1 picolitre) the amount of ink delivered by the printhead can be calculated as well as the consumption of each color or type of ink. In this regard controller board 82 is able to monitor the consumption of each printing fluid and once this level has reached a predetermined level, the tricolor indicator LED can be asserted to indicate to a user that there is a need to replenish the printing fluids.